



TWINNING CONTRACT

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Strengthening the capacity of Jordan's Department of Statistics in terms of compilation, analysis and reporting of statistical data in line with International and European best practices

MISSION REPORT

on

Component 1

Roadmap for the development of an integrated administrative data system in Jordan with pilots on Statistical Business registers (SBR) and population statistics

Activity 1.2.2

Introduction and testing StatBus Systems

Mission carried out by

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List of Abbreviations

- BC – Beneficiary Country
- CoP – General Population and Housing Census 2015
- DoS – Department of Statistics
- HEIS – Household Expenditure and Income Survey
- MS – Member State
- PL – Project Leader
- RTA – Resident Twinning Advisor
- SBR – Statistical Business Register
- StatBus – Statistical Business Register
- STE – Short-term Expert

- *MS* = EU Member State (Denmark, Germany, Italy, Lithuania, Finland);
- *DoS* = Department of Statistics, Jordan

1. General comments

This mission report was prepared within the Twinning Project "Strengthening the capacity of Jordan's Department of Statistics in terms of compilation, analysis and reporting of statistical data in line with International and European best practices". This was the second activity to MR 1.2 Pilot project to develop strategy for integrating administrative data sources for the purposes of creating an SBR. The actions planned for this activity were carried out as scheduled.

The purpose of this activity is to give an introduction to the StatBus system, upload a testfile so the SBR and IT-team can work with the system and become comfortable with the system. The test of the StatBus System for its suitability to support an SBR in Jordan.

The following subjects were covered:

- Installation of the StatBus It-system
- Upload a testpopulation
- Introduction to the StatBus System, a client-server based system for SBR;
- StatBus and relation to UN International Guidelines for Development;
- Content and input in StatBus;
- Maintenance of StatBus;
- Drawing samples from StatBus;
- Census/Establishment survey 2023
- Danish SBR integration
- National Economic statistics based on StatBus;

The consultants would like to express their sincere thanks to all officials and individuals met for the kind support and valuable information which they received during the stay in Jordan and which highly facilitated their work. The views and observations stated in this report are those of the consultants and do not necessarily correspond to the views of EU and Statistics Denmark.

2. Assessment and results

Presentation of the history about StatBus and unit types in SBR and definitions

StatBus is still a young system built for supporting countries without an SBR. To manually build a SBR following the recommendations from the UN SBR takes several years and include a large team. By using the StatBus, Jordan get a system, that is still under development, but a system the Nordic countries, Norway, Sweden, Finland and Denmark, will support and develop also for the next coming years.

StatBus is a tool for storing and maintaining information on businesses from administrative sources, surveys and censuses. It is built and Licensed as open source.

Used for drawing samples and make national economic statistics and as a backbone for National Accounts.

Presentation of StatBus

The experts gave a short presentation on the first day, how to search units, show the unit types etc.

Unit definition

On previous missions there has been some discussions about the unit types. So to reach an agreement on the definitions, there was a long discussion about this. The SBR team and Mr. Omar Hakouz, National Account expert who agreed with the experts and the SBR team about the following:

Legal unit - (الوحدة المسجلة) (الوحدة القانونية)

Local unit - الوحدة المحلية

LKAU / Establishment - المنشأة

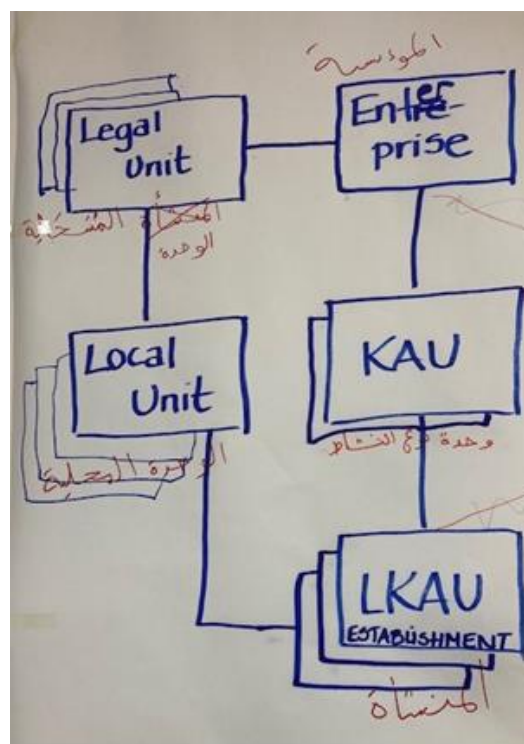
KAU - وحدة نوع النشاط

Enterprise - مؤسسة

It is very important that all statistics agree and understand the agreed upon definition of unit types

From the UN manual

- Legal unit (Administrative)* – a unit that is recognized by law or society, independently of the persons or institutions that own it. The characteristics of a legal unit are that it owns goods or assets, it incurs liabilities and it enters into contracts. A legal unit always forms, either by itself or sometimes in combination with other legal units, the legal basis for a statistical unit.
- Statistical unit* – a unit defined for statistical purposes; the basic unit of observation within a statistical survey; the unit for which information is sought and for which statistics are ultimately compiled. There are four types of statistical unit defined in 2008 SNA and ISIC Rev. 4, as defined immediately below. In addition, enterprises may be grouped by legal and/or financial links into an enterprise group.
- Enterprise* – a legal unit (or the smallest set of legal units) that produces goods or services and that has autonomy with respect to financial and investment decision-making. An enterprise may be a corporation (or quasi-corporation), a non-profit institution, or an unincorporated enterprise. An unincorporated enterprise is household or government unit in its capacity as a producer of goods or services. x
- Establishment* – an enterprise or part of an enterprise that is situated in a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added. x
- Local kind-of-activity unit* – synonym for establishment.



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- *Kind-of-activity unit (KAU)* – an enterprise or part of an enterprise that engages in only one kind of productive activity or in which the principal productive activity accounts for most of the value added.

Installation of StatBus

The installation of StatBus was not as smooth as hoped, but after a long evening the system was up and running by lunch on the third day. The installation was in cooperation between the Danish IT expert and the IT team from DoS.

DoS have an understanding for the system now and have an understanding for setting up the system. If DoS have problems during the test period it is important that they write to Christian (IT) in Statistics Denmark and we will give the support needed.

At the same time the SBR team worked with different classifications and value lists which are an integral part of the StatBus system.

Legal form for companies

Status for Legal unit Active or reason for not active

Role for persons

Size of the company

Region – a level of address there must be on all units (eg. Governorates)

ReOrgTypes/DemographyEvents – split, merge etc of companies

There are still some work left for clarification and translation of all classifications. They can easily be installed and also updated if information is missing.

The more complex classifications need a further discussion internal in DoS

- ISIC
- List of countries
- Foreign participants
- Regions (translations + decide what Region means in DoS)

Statbus is installed with text in both Arabic and English. The Arabic text can be updated by the team in DoS without problems.

A testpopulation on 100 units has been loaded into the system.

Sources

DoS presented the 5 main sources for the SBR

Legal Units is the units recieved from the Administrative sources

- The Ministry of Industry and Trade (MIT)
- Companies Controller Department (CCD)

MIT and CCD cover all registered “companies” in Jordan. Social Security Corporation (SSC) is mentioned as an alternative source for Legal Units. It needs to be tested whether it is an alternative source or not and if yes, in dialogue with MIT and CCD find out why the unit is not covered by MIT or CCD.

An Establishment is a unit recieved from the Administrative sources:

- Greater Amman Municipality (GAM) – Establishment

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- Ministry of Local Administration (MLA) – Establishment (in the future)

GAM and MLA should be covering all establishments, but again the SSC has been mentioned as an alternative source. Again it must be tested if it is true and if yes why – this time together with GAM and MLA.

It is the opinion that the data sources cover all registered units in Jordan. Therefore data from Tax is less important than earlier. Information from Tax will still improve the quality of the SBR, but mostly with added statistical information and perhaps also status for whether the unit is active.

There are several other registers which can supply the SBR to identify whether a unit is active or not, eg. Municipality licenses and use of electricity. The data from SSC can also give added information.

DoS must continue the already great work with owner of administrative data and try to get MoU (written agreements) with them all. An agreement can include data exchange on ISIC code so all units will have an ISIC 4 code in the future. A key between ISIC3 and 4 can be created and used for non-important units.

Testing

The experts recommend that the SBR and It-staff test the Statbus as much as possible. It is not possible to crash anything, the test file (or a new one) can just be reloaded.

The experts will contact the HCP in Morocco so HCP and DoS can share experiences.

Production data in StatBus

Data in the SBR must be based on data from the administrative sources. The key variable is the Stat_id and the Legal ID, so it is not possible to integrate data from the Census 2018, if the Legal ID is not added to the result.

Data about establishment can only be loaded if the Legal ID is represented.

Data from Census 2018 is only added value for known units.

On the next mission there must be further investigation of the data.

It is not the plan to go in production on the next mission. There is a need for preparing the data before loading and also a need to test the updates into the register.

Also rules for receiving data about activity need to be clarified.

Integration and update of results of Census 2018

The SBR team have done a huge job to find Legal Identifier for 75.000 units from the Census 2018, but still more than 100.000 is remaining. With a new SBR in baseline the experts suggest only to use time on large Establishments or large Legal units. It can be if the same name for an owner is represented many times, large turnover or number of employees.

Statistical information about turnover and employment shall be loaded in to the SBR.

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The experts also suggest to have a different approach to the questionnaire. If they can get information about the Legal Identifier it will not be necessary to ask about name and address for it. The experts also suggest for small units (DoS must define) not to ask about secondary activities. For statistical reasons it is not needed. For minimizing the burden for the Establishments and for DoS afterwards, don't ask for data you already have or data not important. It will also improve the quality.

Survey for Establishment 2023/2024

The experts have provided input for the design of the questionnaire for the upcoming survey on establishment. The experts suggest that questions about the size, staff and turnover, of the establishment also limit the number of activities that can be added. Since secondary activities are not relevant for small units.

Result of the establishment survey can be used to test the quality of data on establishment from Greater Amman Municipality and Ministry of Local Administration

The Establishment survey 2023 can hopefully give added information (easy) to the Census 2018 data. Results from the survey must also be used to test the quality of both Legal Units and Establishment.

Statistical information about turnover and employment shall be loaded in to the SBR.

For surveys after Establishment survey 2023 the experts suggest only ask the Legal unit/enterprise.

Quality

The experts emphasized that it is never possible to get a 100% correct SBR. Therefore, the SBR-team must have most focus on the most important companies. This applies especially to ISIC, but also to having an updated number of Establishments and their addresses.

If you refer to the Danish SBR, we estimate that 15-20% of the units have an incorrect ISIC code, especially at the 4-digit level. On 2 digits, the error rate is perhaps 5%. If you look at the errors measured in terms of economy and employment, around 2% are estimated to have errors in ISIC.

It is important to have about 100% good quality

On the other hand, it is very important that you review the units in SBR up to the extraction date, e.g. for frozen versions

- All active units have 3 unit types, Legal Unit, Enterprise and Establishment.
- Is the same industry code or codes represented on all units and main activity on Enterprise and Legal Unit is also main activity on at least one Establishment
- All units have a Region

Frozen versions

The Danish experts explained the thoughts about having a frozen version of the SBR. The main reason is to have a common understanding of the Units in SBR. A common understanding on number of active units, the size of the unit, the ISIC code. With a frozen

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SBR version and with correct use all statistics will have the same information about units and Statistics will be cross-comparable.

Often the quality in SBR improves over time, and it is good practice to have the information in the SBR, but time and cross-comparable is also a quality dimension and therefore extracts do not always have to be made on the current data.

3. Conclusions and recommendations

List conclusions and recommendations related to the activities mentioned in the ToR.

Type of Units

Legal unit - (الوحدة القانونية المسجلة)

Local unit - الوحدة المحلية

LKAU / Establishment - المنشأة

KAU - وحدة نوع النشاط

Enterprise - مؤسسة

Upload data to the SBR

Data in the SBR is based on data from the administrative sources. Data from Census 2018 and survey 2023 is added information.

Unit types in surveys

Surveys shall when the SBR is up and running change the data collection from Establishment to Enterprise. Make sure DoS always get data for the whole Enterprise. It's also natural to ask, at this level, about the Establishment. Some information DoS shall ask for at Enterprise level and some information at Establishment level or KAU.

Census 2018

The work about finding Legal identifiers to the result of Census 2018 needs to be focussed on the most important units.

Business Survey 2023

If DoS wants assistance to improve the questionnaire for the Business Survey, DST would like to participate in a meeting via Zoom.

Preparing for next mission

- It is extremely important that DoS takes time to explore and test StatBus both SBR- and IT team
 - To become comfortable with the system
 - To identify short and long term wishes and issues
 - Test loading data from all data sources
 - If needed contact Charlotte and she will contact the experts
- Work towards a common understanding/knowledge in DoS of the decided terms of legal and local unit
- Finalize classifications and variable lists

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- Continue the already great work with owner of administrative data – try to get MoU (written agreements)
 - Compare variables between input data sources and consider whether something presents quality challenges
-

Annex 1. Terms of Reference

The purpose of this activity is to Introduction and testing the StatBus System for its suitability to support an SBR in Jordan.

The following subject will be covered:

- Introduction to the StatBus System, a client-server based system for SBR;
- StatBus and relation to UN International Guidelines for Development;
- Content and input in StatBus;
- Maintenance of StatBus;
- Drawing samples from StatBus;
- National Economic statistics based on StatBus;
- Testing functionality of StatBus;

Expected output of the activity

- Activity report;
- Common understanding of international best practices for SBR;
- StatBus downloaded and implemented for testing;
- Initial testing carried out in order to determine usability and the fulfillment of needs for DoS;

Annex 2: Programme for the mission

- **Monday morning**
 - Welcome and introduction to this activity
 - Status for SBR in DoS
 - Introduction to Statbus
- **Monday afternoon**
 - Requirement for installing Statbus
 - Variables, value lists/codeliste etc.
 - Create data source templates – variables
- **Tuesday morning**
 - Installation of StatBus (It might take many hours, we don't know)
 - Sector code rules
 - Value lists (preliminary)
- **Tuesday afternoon**
 - Value lists (preliminary)
 - Access to the database
 - Upload classifications – preparation for data entry
 - Quality work in a SBR
- **Wednesday morning**
 - Load test population
 - Look into StatBus (if ready)
- **Wednesday afternoon**
 - Work in the database with historic data
- **Thursday**
 - Installation StatBus
 - Test program
 - Development of StatBus
 - Presentation of achievement for the management
 - Future work/next mission

Annex 3. Persons met

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Actions needed for moving forward as well as for preparing the next mission –add rows as needed.

Action	Deadline	Responsible person

Annex 4. Conclusions from the Mission

Agenda

- StatBus Introduction
- StatBus Installation
- Unit definitions
- Classifications and value lists
- Data sources
- Census/Establishment survey 2023
- Danish SBR integration
- Main conclusions
- Until next mission

StatBus Introduction - 1

- StatBus is a client-server based system for statistical business registers which is an important backbone of any national statistical office.
- A tool for storing and maintain information on businesses from administrative sources, surveys and censuses
- Licensed as open source
- Based on UN international guidelines for development and maintenance of statistical business registers
- Used for drawing samples and make national economic statistics
- Important for National Accounts

StatBus Introduction - 2

- Made by Norway
- Cooperation between Nordic countries
- Installed in several countries, more to come
- Can save NSI several main years in building a SBR – since the main building block needed is already available in StatBus
- Still under development
 - Many short and long term wishes
- Presentation of the system
 - Live version of the register briefly showcased

StatBus Installation

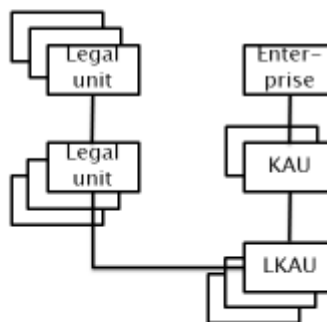
- Initial installation experienced some problems
 - StatBus is a young system, so the expert was prepared and the problems were quickly resolved
- The experts and DoS worked together to produce the needed classifications
- The system support both Arabic and English for all screens and classifications
- DoS has prepared a test population of 100 units and they have been loaded
- Challenge to be solved – license for the Docker

Unit definition

We agreed on the following definition in DoS:



- Legal unit/ - الوحدة القانونية (الوحدة المسجلة)
- Local unit - الوحدة المحلية
- LKAU / Establishment - المنشأة
- KAU / وحدة نوع النشاط
- Enterprise - مؤسسة



Classifications and value lists

- The basic classifications are easily updated (Currently a mix of google translate and official translation)
- The more complex classifications needs to be discussed internal in DoS
 - ISIC
 - List of countries
 - Foreign participants
 - Regions (translations + decide what Region means in DoS)

Data sources

- DoS has access to data with good coverage of the Jordanian economy
 - The Ministry of Industry and Trade (MIT) – Legal Unit
 - Companies Controller Department (CCD) – Legal Unit
 - Greater Amman Municipality (GAM) – Establishment
 - Social Security Corporation (SSC) – Supply with Legal Unit
 - Ministry of Local Administration (MLA) – Establishment (in the future)
- Creations of new registered units are covered by MIT and CCD
- Creations of establishments are covered by GAM and MLA
- Creating units based on SSC data needs to be analysed
- Data sources for closures (not active) need to be identified

DoS need to identify potentially overlapping data and prioritize them

Data from the Tax authority is a data supply for the quality in SBR



Census/Establishment survey 2023

- Result of Establishment survey 2023
 - Used to updating the legal identifier for establishments from the census 2018
 - Used to test the quality of establishment data sources. Establishment found in the survey should also be identified in the data from GAM and MLA
- Suggestions for questionnaire:
 - If company is small (turnover < 200.000 JDN and employment < 15) don't ask for secondary activity
 - Make sure you don't ask for information received from other data sources, eg. Name and address for the legal unit
 - Goal: Reduce the burden and improve the quality



Presentation of the Danish SBR

The following topics were covered:

- Basic model for the Danish SBR
- Main sources (common database)
- How SD use data from ABR
- How SD update data in ABR
- Address/coordinates as at common reference



Main conclusions

- StatBus - populate with data from the administrative sources
 - **Census 2018** can be used as a supplier
 - Survey 2023 will be used as a supplier for the statistical information and the quality of administratively registered establishments
- The work finding legal identifiers for establishments need to be fine tuned to prioritize the most important legal unit (by turnover, employment, etc.)
- The definition of statistical units has been reviewed to better align with international standard
- The staff are engaged and want the project to be a success

Until next mission

- It is extremely important that DoS takes time to explore and test StatBus
 - To become comfortable with the system
 - To identify short and long term wishes and issues
 - Test loading data from all data sources
 - If needed contact Charlotte and she will contact the experts
- Work towards a common understanding/knowledge in DoS of the decided terms of legal and local unit
- Finalize classifications and variable lists
- Continue the already great work with owner of administrative data – try to get MoU (written agreements)

Thank you

For

Your engagement
Good discussions
willingness to listen
and patience



looking forward to returning in March